Listing of the claims:

1.   (Currently amended) An apparatus for detecting a position of an object in one or more images captured by an image pickup device mounted on a vehicle, comprising:

(a) a memory configured to store a plurality of images captured by the image pickup device, including a first image of an object taken at a first time and a second image of the object captured at a second time; and

(b) a controller operatively coupled to the memory and configured to determine whether a first pitch angle of the vehicle relative to a y-coordinate in a horizontal direction at the first time is ~~level~~ zero and whether a second pitch angle of the vehicle relative to the y-coordinate in the horizontal direction at the second time is ~~level~~ zero, and to determine the position of the object in the second image based on the position of the object in the first image if the first pitch angle is ~~level~~ zero and the second pitch angle is ~~non-level~~ not zero.

2.   (Currently amended) The apparatus of claim 1, wherein the controller is further configured to compute an image acceleration of the second image; and to determine that the second image was captured when the second pitch angle of the vehicle was ~~level~~ zero if the image acceleration of the second image is zero.

3.   (Currently amended) The apparatus of claim 2, wherein the controller is further configured to compute a vertical image velocity of the second image, and to determine that the second image was captured when the second pitch angle of the vehicle was ~~level~~ zero if the second image has a zero image acceleration and a non-zero vertical image velocity.

4.   (Currently amended) The apparatus of claim 1, wherein the memory includes a third image of the object captured at a third time when a third pitch angle of the vehicle is ~~level~~ zero, and wherein the controller is further configured to determine the position of the object in the second image based on the position of the object in the first image and the position of the object in the third image.

5.   (Currently amended) The apparatus of claim 1, wherein the controller

is further configured to compute a size of the object in the second image based on a size of
the object in the first image if the second image was captured when the second pitch ~~angle~~
of the vehicle was not ~~level~~ zero, and to compute a distance between the image pickup
device and the object in the second image based on the computed sizes of the object in the
first and second images.

6.   (Currently amended) The apparatus of claim 5, wherein the controller
is further configured to compute a vision axis of the image pickup device based on the
computed distance if the second image was captured when the second pitch angle of the
vehicle was not ~~level~~ zero, and to compute the position of the object in the second image
based on the computed vision axis.

7.   (Currently amended) A vehicle, comprising:
(a) an image pickup device mounted on the vehicle to capture a plurality of
images of at least one object;
(b) a memory on which is stored the plurality of images captured by the
image pickup device, including a first image of the at least one object taken at a first time
when a first pitch angle of the vehicle relative to a y-coordinate in a horizontal direction is
~~level~~ zero and a second image of the at least one object captured at a second time;
(c) a controller operatively coupled to the memory and configured to
determine whether a second pitch angle of the vehicle at the second time is ~~level~~ zero, and
to determine a position of the at least one object in the second image based on the position
of the at least one object in the first image if the ~~the~~ second pitch angle is ~~non-level~~ not zero.

8.   (Currently amended) The vehicle of claim 7, wherein the controller is
further configured to compute an image acceleration of the second image; and to determine
that the second image was captured when the second pitch angle of the vehicle was ~~level~~
zero if the image acceleration of the second image is zero.

9.   (Currently amended) The vehicle of claim 8, wherein the controller is
further configured to compute a vertical image velocity of the second image, and to
determine that the second image was captured when the second pitch angle of the vehicle
was ~~level~~ zero if the second image has a zero image acceleration and a non-zero vertical

image velocity.

10.   (Currently amended) The vehicle of claim 7, wherein the memory
includes a third image of the at least one object captured at a third time when a third pitch
angle of the vehicle is level zero, and wherein the controller is further configured to
determine the position of the at least one object in the second image based on the position of
the at least one object in the first image and the position of the at least one object in the third
image.

11.   (Currently amended) The vehicle of claim 7, wherein the controller is
further configured to compute a size of the at least one object in the second image based on
a size of the at least one object in the first image if the second image was captured when the
second pitch angle of the vehicle is not level zero, and to compute a distance between the
image pickup device and the at least one object in the second image based on the computed
sizes of the at least one object in the first and second images.

12.   (Currently amended) The vehicle of claim 11, wherein the controller
is further configured to compute a vision axis of the image pickup device based on the
computed distance if the second image was captured when the second pitch angle of the
vehicle was not balanced zero, and to compute the position of the at least one object in the
second image based on the computed vision axis.

13.   (Currently amended) An apparatus for detecting a position of an
object in one or more images captured by an image pickup in a vehicle, comprising:
        image judgment means for determining whether a first image of the object
captured by the image pickup was captured when a first pitch angle of the vehicle relative to
a y-coordinate in a horizontal direction was level zero; and
        object position computing means for determining the position of the object in
the first image if the first image was captured when the first pitch angle of the vehicle was
not level zero, which determination is based on a second image of the same object that was
captured when a second pitch angle of the vehicle was level zero.

14.   (Currently amended) A method for detecting a position of an object

in an image captured by an image pickup in a vehicle, comprising:

determining whether a first image of the object captured by the image pickup was captured when a first pitch angle of the vehicle relative to a y-coordinate in a horizontal direction was ~~level~~ zero; and

determining the position of the object in the first image if the first image was captured when the first pitch angle of the vehicle was not ~~level~~ zero, which determination is based on a second image of the same object that was captured when a second pitch angle of the vehicle was ~~level~~ zero.

15.   (Currently amended) The method of claim 14, further comprising determining a first image acceleration of the first image; wherein the first pitch angle of the vehicle is determined to be ~~in level~~ zero if the first image acceleration is zero.

16.   (Currently amended) The method of claim 15, further comprising determining a vertical image velocity of the first image; wherein the first pitch angle of the vehicle is determined to be ~~in level~~ zero if first image has a zero image acceleration and a non-zero vertical image velocity.

17.   (Currently amended) The method of claim 14, further comprising providing a third image of the of the object captured when a third pitch angle of the vehicle was ~~level~~ zero, and wherein the position of the object in the first image is determined based on the positions of the object in the second image and in the third image.

18.   (Currently amended) The method of claim 14, further comprising computing a size of the object in the first image based on the size of the object in the second image if the first image was captured when the first pitch angle of the vehicle was not ~~level~~ zero, and computing the distance between the image pickup device and the object based on the computed sizes of the object in the first and second images.

19.   (Currently amended) The method of claim 18, further comprising computing a vision axis of the image pickup device based on the computed distance of the object, if the first image was captured when the first pitch angle of the vehicle was not ~~level~~ zero, and computing the position of the object in the first image based on the computed

vision axis.